

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-12 (canceled).

13. (currently amended) A polymer mixture containing at least one synthetic first polymer P(i) and at least one second polymer P(j),

wherein the first polymer P(i) has a degree of polymerisation $DP(P(i)) > 500$ and at least one type of crystallisable sequences A having a degree of polymerisation $DPs(P(i))$ of these sequences > 20 ,

wherein the second polymer P(j) is made up of the same monomer units as the sequences A of P(i) and the degree of polymerisation $DP(P(j))$ of P(j) is $20 < DP(P(j)) < 500$,

wherein the polymer mixture comprises a molecularly dispersed mixture containing P(i) and P(j) that forms a network under heterocrystallisation,

wherein, under comparable processing conditions of P(i) and of P(i) + P(j), the quotient of the modulus of elasticity $E(i, j)$ of P(i) + P(j) and the modulus of elasticity $E(i)$ of P(i), $E(i, j)/E(i)$ is > 1.1 and < 4

wherein P(i) or the sequences A of P(i) comprises a polyolefin selected from the group consisting of a polypropylene, polyethylene, VLDPE, LDPE, LLDPE, HDPE, HMDPE, UHMWPE and mixtures thereof, and

wherein P(j) has a polydispersity < 30 and is selected from the group consisting of n-alkanes C_nH_{2n+2} ; isoalkanes C_n ; cyclic alkanes C_nH_{2n} ; polyethylene wax; paraffins and paraffin wax of mineral origin such as

macrocrystalline, intermediate or microcrystalline paraffins, brittle, ductile, elastic or plastic microcrystalline paraffins; paraffins and paraffin wax of synthetic origin; hyper-branched alpha olefins; polypropylene wax and mixtures thereof.

14. (previously presented) The polymer mixture according to claim 13, wherein under comparable processing conditions of $P(i)$ and of $P(i) + P(j)$ the quotient of the yield stress $sy(i, j)$ of $P(i) + P(j)$ and the yield stress $sy(i)$ of $P(j)$, $sy(i, j)/sy(i)$ is >1.1 and <3.0 .
15. (previously presented) The polymer mixtures of claim 14, wherein $E(i, j)$ is >1.3 , $sy(i, j)$ is > 1.2 and $eb(i, j)$ is > 1.03 .
16. (previously presented) The polymer mixtures of claim 14, wherein $E(i, j)$ is >1.5 , $sy(i, j)$ is > 1.3 and $eb(i, j)$ is > 1.05 .
17. (previously presented) The polymer mixtures of claim 14, wherein $E(i, j)$ is >2.0 , $sy(i, j)$ is > 1.5 and $eb(i, j)$ is > 1.10 .
18. (previously presented) The polymer mixture according to claim 13, wherein a quotient of the MFI(i, j) of the mixture of $P(i) + P(j)$ and the MFI(i) of $P(i)$, $MFI(i, j)/MFI(i)$ is >1.2 and <500 .
19. (previously presented) The polymer mixture according to claim 18, wherein the quotient of MFI(i, j) and MFI(i) is >1.5 .

20. (previously presented) The polymer mixture according to claim 18, wherein the quotient of $MFI(i, j)$ and $MFI(i)$ is >2.0 .
21. (previously presented) The polymer mixture according to claim 18, wherein the quotient of $MFI(i, j)$ and $MFI(i)$ is >3.0 .
22. (previously presented) The polymer mixture according to claim 13, wherein under comparable processing conditions of $P(i)$ and of $P(i) + P(j)$, the quotient of the crystallinity $K(i, j)$ of $P(i) + P(j)$ and the crystallinity $K(i)$ of $P(i)$, $K(i, j)/K(i)$ is >1.03 and <3 .
23. (previously presented) The polymer mixture according to claim 22, wherein the quotient of $K(i, j)$ and $K(i)$ is >1.05 .
24. (previously presented) The polymer mixture according to claim 22, wherein the quotient of $K(i, j)$ and $K(i)$ is >1.1 .
25. (previously presented) The polymer mixture according to claim 22, wherein the quotient of $K(i, j)$ and $K(i)$ is >1.2 .
26. (previously presented) The polymer mixture according to claim 13, wherein the fraction $A(j)$ of $P(j)$ relative to $P(i) + P(j)$ in wt.% is in the range $1 < A(j) < 90$.
27. (previously presented) The polymer mixture according to claim 13, wherein the fraction $A(j)$ of $P(j)$ relative to $P(i) + P(j)$ in wt.% is in the range $2 < A(j) < 85$.

28. (previously presented) The polymer mixture according to claim 13, wherein the fraction $A(j)$ of $P(j)$ relative to $P(i) + P(i)$ in wt.% is in the range $3 < A(j) < 80$.
29. (previously presented) The polymer mixture according to claim 13, wherein the fraction $A(j)$ of $P(j)$ relative to $P(i) + P(i)$ in wt.% is in the range $5 < A(j) < 75$.
30. (previously presented) The polymer mixture according to claim 13, wherein $P(i)$ has a degree of branching $< 3 \times 10^{-2}$, and $P(j)$ has a degree of branching $< 5 \times 10^{-2}$.
31. (previously presented) The polymer mixture according to claim 13, wherein $P(i)$ has a degree of branching $< 1 \times 10^{-2}$, and $P(j)$ has a degree of branching $< 1 \times 10^{-3}$.
32. (previously presented) The polymer mixture according to claim 13, wherein $P(i)$ has a degree of branching $< 5 \times 10^{-3}$, and $P(j)$ has a degree of branching $< 1 \times 10^{-3}$.
33. (previously presented) The polymer mixture according to claim 13, wherein $P(i)$ has a degree of branching $< 1 \times 10^{-3}$, and $P(j)$ has a degree of branching $< 1 \times 10^{-4}$.
34. (cancelled)
35. (previously presented) The polymer mixture according to claim 13, wherein $P(j)$ has a polydispersivity < 20 .
36. (previously presented) The polymer mixture according to claim 13, wherein $P(j)$ has a polydispersivity < 10 .

37. (previously presented) The polymer mixture according to claim 13, wherein P(j) has a polydispersivity <5.
38. (previously presented) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >20.
39. (previously presented) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >30.
40. (previously presented) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >40.
41. (previously presented) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >50.
42. (cancelled)
43. (cancelled)
44. (previously presented) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm³ of >0.9, and a melting or dropping point in °C of >80.
45. (previously presented) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm³ of >0.925, and a melting or dropping point in °C of >100.
46. (previously presented) The polymer mixture according to

- claim 13, wherein P(j) has a density in g/cm^3 of >0.950 , and a melting or dropping point in $^{\circ}\text{C}$ of >110 .
47. (previously presented) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.970 , and a melting or dropping point in $^{\circ}\text{C}$ of >120 .
48. (previously presented) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.980 , and a melting or dropping point in $^{\circ}\text{C}$ of >125 .
49. (previously presented) The polymer mixture according to claim 13, wherein the polymer mixture in the form of a thermoplastic melt is prepared by means of a dispersively and distributively acting mixing system, especially by means of a double-screw extruder or a single-screw extruder with mixing section or a Buss-Ko kneader and optionally after preparation is present in the form of granules, pellets, powder, macro- or micro-fibres, as film, casting, continuous casting, extrudate, thermo-shaped part and the like.
50. (previously presented) The polymer mixture according to claim 13, further comprising a swelling agent for at least one of P(i) and P(j).
51. (previously presented) The polymer mixture of claim 14, wherein, if there is a fraction A(j) of P(j) relative to P(i) + P(i) in wt.% within the range $1 < A(j) < 15$, the quotient of the breaking elongation $eb(i, j)$ of P(i) + P(j) and the breaking elongation $eb(i)$ of P(i), $eb(i, j)/eb(i)$ is >1.01 and <1.5 .